

Appendix E

Appendix E

Descriptions of Potential Regional Conventional Supply Options

This appendix provides brief descriptions of potential regional conventional supply options¹ as identified in the 2001 Central Puget Sound Regional Water Supply Outlook. The lead utility or agency responsible for each project provided the bulk of the information summarized here and in the Outlook. It should be noted that the potential supply options described below are in different stages of planning and development and that water utilities typically explore more potential supply options than they ultimately develop. Many of these projects may never progress beyond the planning stage. The projects vary widely in yield, cost, environmental impact, and the political and legal barriers they face.

Most of the conventional supply options in this appendix would be located in King County. However, several projects have been included here that are actually located in Pierce or Snohomish Counties but could bring additional water to King County through potential new connections between water systems. Note that a description of Tacoma's Second Supply Project is also provided in Section 4.4.2 (page 4-14). More complete summaries of these projects can be found in Chapter 9 of the Outlook, accessible on the Forum's web site at www.cityofseattle.net/forum/. Projects are listed alphabetically in the following categories:

1. Projects in King County that would be implemented by Seattle Public Utilities
2. Projects in King County in which Seattle Public Utilities would be a partner
3. Projects in King County not involving Seattle Public Utilities
4. Projects in Snohomish or Pierce counties that could bring water into King County

Supply Options for Seattle Public Utilities

Cedar Permanent Dead Storage

Seattle Public Utilities receives much of its water from the Chester Morse Lake reservoir and the Cedar River, in the Cedar River Watershed. Under normal conditions, Chester Morse Lake can be drawn down to an elevation as low as 1,532 feet—the lowest elevation that water can flow by gravity to the Masonry Pool. However, Chester Morse Lake also stores a substantial amount of high quality water below this elevation, which now can only be withdrawn during drought conditions using temporary pumping plants.

¹ The term, "conventional supply options" is defined on page 4-12.

About 34,000 acre-feet (11 billion gallons) of water are stored between elevation 1,532 and 1,502 feet, the lowest elevation likely to be considered for use. This volume is called “dead storage.”

The Cedar Permanent Dead Storage Project would require construction of permanent pumping and/or conveyance facilities and modify the operation of Chester Morse Lake to access its dead storage on a more regular basis. As currently conceived, use of dead storage would not be required every year. Drawdowns to or below elevation 1,532 feet would be expected in one out of four years. Theoretically, the project could increase the firm yield of the combined Seattle regional supply system by an estimated 39 mgd while maintaining the instream flows committed to in the Cedar River Habitat Conservation Plan (HCP). However, through the HCP, SPU agreed to allocate some of the water from this project to further benefit anadromous fish making less than the full 39 mgd available for municipal use.

Lake Youngs Drawdown

In Seattle Public Utilities' Cedar River supply system, water is diverted at Landsburg and routed to the Lake Youngs Reservoir for delivery by gravity to SPU's distribution system. Historically, SPU has operated Lake Youngs to balance the Cedar supply. That is, when higher delivery needs or excess water available for diversion cause inflows and outflows from Lake Youngs to differ, increases or decreases in storage at Lake Youngs are used to make up the difference. In addition to functioning as regulating storage, Lake Youngs is also used occasionally as backup storage when the diversion at Landsburg is shut down due to high turbidity. The lake typically fluctuates within 3 feet, although drawdowns of as much as 10 feet have occurred in the past. SPU does not currently draw down Lake Youngs to provide additional firm yield to its system. This project would use storage at Lake Youngs and additional diversions from the Cedar River to increase SPU's overall supply.

SPU's planned Cedar River Water Treatment Facility (ozonization) will include a new multi-level intake in Lake Youngs. The multi-level intake will allow SPU to withdraw water from various levels to better manage the quality of untreated water supplied to the treatment plant. Although drawdown of Lake Youngs below historic levels is not part of the Cedar Treatment Facility proposal, a multi-level intake could potentially allow the Lake Youngs Reservoir to be drawn down to provide additional firm yield to the water supply system. To accomplish this, however, an additional treatment process (e.g., filtration) would have to be added to the Cedar Treatment Facility because drawdown would increase turbidity and ozone treatment would be ineffective at reducing increased turbidity levels. Although this alternative would allow drawdowns of up to 28 feet, drawdowns would not be required every year to increase the firm yield of

SPU's overall supply system. Computer modeling by SPU suggests the reservoir could be drawn down for water supply in about one out of four-and-a-half years on average. Up to 20 mgd of additional system-wide firm yield could be achieved with the project while meeting the flow commitments in the Cedar River Habitat Conservation Plan.

North Fork Tolt Diversion Project

Early planning documents for development of the Tolt River by Seattle considered use of the North Fork Tolt River in conjunction with the South Fork Tolt River. Envisioned as the final component of Seattle's Tolt Water Supply System, the North Fork Tolt River is identified as an alternative water supply source.

This alternative would include a new diversion weir and intake on the North Fork Tolt River, and one or two large-diameter pipelines to the existing Tolt Regulating Basin. The pipelines would be about 13,000 feet long. With development of this alternative, water from the North Fork Tolt River would be diverted to the regulating basin. This project would also implement the South Fork Tolt Additional Drawdown to elevation 1,660 feet as described below. While this alternative would not necessitate the development of new storage capacity on the Tolt supply system, it would require improvements to the Tolt Treatment Facility to enhance its ability to treat highly turbid water. In addition, the capacity of the treatment facility would have to be increased to as high as 240 mgd from the current capacity. Expanded transmission capacity would also be needed and could be achieved by completing the remaining phases of Tolt Pipeline No. 2. Diversions could occur at any time, provided that instream flow requirements on the North Fork Tolt River were met. Computer modeling by SPU indicates the North Fork Tolt Diversion could result in additional system-wide firm yield of up to 40 mgd. However, the yield could be as low as 8 mgd if the project was required to meet current Washington State Instream Resources Protection Program minimum flows on the mainstem of the Tolt River, which are not now required for operation of the South Fork Tolt Reservoir.

South Fork Tolt Additional Drawdown

This project would provide additional water supply by drawing down below the existing minimum level in the South Fork Tolt Reservoir. The South Fork Tolt Reservoir is capable of storing 18.3 billion gallons between the lowest gate elevation on the existing intake (elevation 1,660 feet) and its normal maximum operating level of 1,765 feet. However, because of the potential for high turbidities with drawdowns to elevation 1,660 feet, drawdowns are limited to a normal minimum elevation of 1,710 feet, even with the new Tolt Treatment Facility. The South Fork Tolt Additional

Drawdown project would involve operating the existing Tolt system with a minimum operating elevation of 1,660 feet. This alternative could result in the need for new or expanded treatment processes, such as the addition of sedimentation basins, at the Tolt Treatment Facility site depending on water quality studies. This alternative requires no physical improvements at the South Fork Tolt Reservoir.

Implementation of the South Fork Tolt Additional Drawdown would not result in lowering the reservoir to elevation 1,660 feet every year. Computer modeling by Seattle Public Utilities suggests that implementation of this alternative could result in an additional 8 mgd of system-wide firm yield with the reservoir falling to or below elevation 1,710 feet in one out of six years on average.

Supply Options Involving Seattle and Other Utilities

Second Supply Project

The City of Tacoma's primary source of supply is a diversion dam on the Green River, in east King County. After many years of planning, Tacoma Public Utilities (TPU) is now implementing the Green River Second Supply Project, which will significantly expand the supply capacity from the Green River into Tacoma. An element of the Second Supply Project is the North Branch pipeline (formerly referred to as the Tacoma-Seattle Intertie Pipeline), which will convey water from Tacoma's Second Supply Pipeline north to south King County utilities and to Lake Youngs, augmenting Seattle Public Utilities' (SPU's) supply capacity. The North Branch pipeline will also be able to convey water south from Seattle's system with the addition of a pump station, but this is not currently being considered.

Development of Tacoma's second water right on the Green River entails expansion of Tacoma's existing diversion near Palmer. The main branch of the Second Supply Pipeline (previously referred to as Pipeline 5) will be constructed from the diversion to Tacoma. A north branch of the Second Supply Pipeline will also be constructed to the Lake Youngs area in order to provide water to SPU's system. Kent and Covington will also obtain water from taps off of the north branch pipeline. Seattle, Kent, Covington, and Lakehaven will all participate in the project but it will be owned and operated by Tacoma. TPU has a permit for its second water right to divert up to 100 cfs (about 65 mgd) from the Green River for use in areas it sells water. Additional instream flow requirements for the project have been provisionally established in an agreement between TPU and the Muckleshoot Indian Tribe, limiting allowable diversions during the summer. As a result, on an average annual basis, diversions from the Green River are expected to range between about 40 and 45 mgd. About one-third of the water will be allocated to

Tacoma, one-third to Seattle, and one-third to Kent, Covington, and Lakehaven. This project will enhance the efficiency of SPU and TPU's current water supply systems by making use of existing sources and by allowing SPU and TPU to share and allocate stored water in a manner that benefits each utility and instream resources. A bilateral arrangement between TPU and SPU allows the two utilities to optimize benefits by pooling a portion of their allocated storage at Howard Hanson Dam. Under this arrangement, SPU will get more water from storage in dry years when TPU will be able to utilize its groundwater sources more heavily. (This arrangement may require TPU to develop additional wells from its groundwater system.) This "conjunctive use" of the two water systems optimizes the overall amount of water provided to SPU and TPU for municipal and instream uses. Another agreement allows for mutual aid between Covington, TPU, and SPU in major emergencies.

Snoqualmie Aquifer Project

A new source under consideration is the development of the Snoqualmie Aquifer with an interconnection to Seattle Public Utilities' Tolt Pipeline. The Snoqualmie Aquifer Project has been under study for a period of 10 years and is sponsored by a partnership of the East King County Regional Water Association (EKCRWA) and Seattle Public Utilities. Under the current concept, this project would only operate during the summer months and would involve pumping groundwater from the Snoqualmie Aquifer and introducing the groundwater into the Snoqualmie River upstream of Snoqualmie Falls. The water would then be conveyed using the Snoqualmie River to the point of withdrawal. Withdrawals from the Snoqualmie River for water supply would take place south of Duvall in the vicinity of the Tolt Pipeline crossing (downstream of the confluence with the Tolt River) where the water would be treated at a new filtration plant and pumped to SPU's Tolt Pipeline No. 2. Additional capacity could be extracted from the Snoqualmie River during high river stages and moved to storage facilities as an option. The amount withdrawn would include both surface water and groundwater introduced into the river. The amount of groundwater that could be withdrawn is assumed to equal the predicted net increase in streamflow, taking into account reductions in base flow due to groundwater pumping. The amount of surface water that could be withdrawn is assumed to be no more than the amount of surface water above instream flow requirements at Carnation, as required by the Washington State Instream Resources Protection Program.

This alternative would include development of a well field with a total capacity of 20 to 40 mgd in the upper Snoqualmie River basin, in the general vicinity of North Bend. In addition to the well field, this alternative would include:

- ❑ Facilities to aerate groundwater and discharge it to the Snoqualmie River upstream of Snoqualmie Falls.
- ❑ A surface water diversion weir and intake structure in the lower Snoqualmie River near Duvall and associated pump station.
- ❑ A new 25 mgd to 52 mgd water treatment facility.
- ❑ About 3 miles of pipeline connection between the pump station and treatment plant and between the treatment plant and SPU's Tolt Pipeline.

The treatment facility would likely include filtration and be located somewhere on the Novelty Hill Plateau. Because this alternative would be developed jointly with EKRWA, additional pipelines may be constructed by EKRWA to deliver water to certain Eastside water utilities that are not now served by, or planned to be served by, SPU's system. Based on these operating assumptions, computer modeling by SPU suggests that summer use of the Snoqualmie Aquifer project could increase system-wide firm yield by 9 to 16 mgd. Projections by EKRWA indicate that water utilities not now served by SPU would utilize 6 mgd from this source by 2020. Thus, this alternative would result in an additional 3 to 10 mgd of firm yield to serve SPU's existing customers.

Supply Options Involving Other King County Utilities

Auburn Groundwater Supply

The City of Auburn has been evaluating the technical and legal issues associated with the further development of what it describes as the Auburn Deep Aquifer, which is located primarily below the City's water supply service area. The City currently has an Intergovernmental Agreement (IGA) with the Covington Water District and King County Water District No. 111 to provide a portion of their water supply needs. The IGA provides for an interruptible supply, pending receipt of new water right permits from the Department of Ecology.

To establish the availability of water for the new water rights to firm up the subregional supply to Covington and King County Water District No. 111 from Auburn, Auburn completed a groundwater characterization study in 1999 and is now preparing alternative groundwater management and development strategies. Auburn expects to determine a development and management strategy for its proposed groundwater application in the coming year, with the goal of completing related supporting studies, State Environmental Policy Act (SEPA) analysis, and appropriate tribal and agency consultations, over the next three years. Overall, this effort is intended by Auburn to meet the regulatory and scientific standards required

by law to secure new primary water rights for wells #6 and #7. Auburn is continuing to evaluate its options for a long-term (up to 50 years) supply to meet its municipal water needs from the groundwater and/or other regional options.

Lake Washington Withdrawal

The Shoreline Water District has been investigating a project that could reinstate the use of Lake Washington as an impounded source of water. In the 1950s and 1960s, the lake was used by Bellevue and a number of smaller water districts as a source of water. The capacity of this project is limited only by water rights and economics. Average annual firm yield could be developed at a level appropriate within the regional supply system context. The surface area of Lake Washington is about 22,934 acres. Therefore, each inch of water in the lake represents about 596 million gallons of water. The amount of water within the normal U.S. Army Corps of Engineers operational elevation variation of 2 feet is about 14.3 billion gallons. Significant quantities of water are available on a very reliable basis. As with any surface water source, the ability to vary production to coincide with seasonal variations in demand would be constrained by the design and configuration of the required water treatment plant and any associated post-treatment storage. Facilities to connect a Lake Washington supply source to the regional system would include pump stations and transmission mains. These facilities would need to be sized consistent with the regional context of the impoundment source and the location of withdrawal and treatment facilities. Water withdrawn from the lake would require treatment consistent with the Safe Drinking Water Act before being used for potable water.

OASIS Aquifer Storage and Recovery Project

The Lakehaven Water Utility District is supplied primarily from its own wells, but also purchases water wholesale through interties with Tacoma Public Utilities. For many years, Lakehaven has been exploring ways to better manage its available resources in order to increase summer supplies, reduce the potential impact to the hydrogeologic system, and supply future water needs of its customers. From that research, a program called "Optimization of Aquifer Storage for Increased Supply," or OASIS, has emerged as an appealing potential project. Water would be collected and stored in underground aquifers during the rainy season and utilized during the drier months. This type of project is known as Aquifer Storage and Recovery (ASR).

In 1992, Lakehaven conducted a pilot recharge study to evaluate the feasibility of inter-aquifer groundwater transfer as a means to store and

recover excess groundwater to increase the District's potential supply resources. The aquifer chosen for investigation was the Mirror Lake Aquifer (MLA). The MLA was estimated to have low vulnerability to surface contamination and high permeability, rendering it suitable for artificial groundwater storage and recovery. The results of the pilot recharge study indicated that artificial storage and recovery using the MLA was feasible and worthy of further study. The available water stored within this aquifer is estimated to be 29,000 acre-feet (9.4 billion gallons) between an elevation of zero to 200 feet above sea level. From the 1994 OASIS Feasibility Study, the operation of the full-scale regional OASIS project could involve a winter time recharge rate of about 45 mgd over a seven-month period and a continuous recovery rate of 62 mgd during a five-month summer period. The likely sources of the winter water required to recharge the aquifer were assumed to be the Green River and/or Cedar River, although existing groundwater supplies could also contribute. Lakehaven has successfully experimented with recharging groundwater into the aquifer without treatment on a small scale. However, pre- and post-water treatment would likely be necessary in a full-scale configuration with either surface or groundwater sources. A pipeline would be required to transport water between the City of Tacoma's Second Supply Project and the recharge/recovery treatment facility located within the District. If the OASIS project were fully implemented, approximately 27 dual-purpose wells would be required. Lakehaven expects that the project could be constructed in multiple phases, as supply is needed. Lakehaven's primary water supply currently comes from a series of wells installed within the aquifers underlying the area. The effects of the increasing water demands are taxing the capability of the existing groundwater resources. The District has considered a number of factors in evaluating methods of making the best use of available resources including protecting the aquifers from contamination, maintaining recharge, optimizing aquifer storage, and avoiding overdrafting of specific aquifers.

A significant issue for the project is the potential impact of filling the aquifer each winter when significant amounts of water are available and drawing it down each summer. As part of the feasibility study, Lakehaven evaluated the aquifer's likely hydrogeologic response to this regimen, its vulnerability to contamination, its potential for geotechnical complications, and the chemical compatibility of surface waters and groundwater. According to the study, the level of protection of the MLA is relatively high and the potential for contamination is considered not to be problematic based upon the available information. Furthermore, the aquifer would not be recharged to a level higher than observed historically, and seepage is not expected to be significant.

Supply Options Located in Other Counties

Everett/Seattle Public Utilities Intertie

This supply option is based on the concept that excess water from the Sultan supply that is currently not being used by Everett could be used on a temporary basis by Seattle Public Utilities, if an intertie were constructed between the two systems. This excess water is based on the difference between Everett's current withdrawals from the Sultan River and the City's existing water rights. The quantity of water available would decline over time as growth occurs and demands increase in Everett's wholesale and retail service area.

Demands and demand patterns have changed over the years and currently the demand on the Sultan supply is less than the certificated amount. Therefore, under the context of this alternative, this unused portion could be made available on a temporary basis. In any given year the amount available could not exceed the difference between Everett's demands in that year and the maximum allowed in the certificated water right. It is assumed for this alternative that the project could be online by 2010, and that a "wedge" of water would be available for temporary transfer. Based upon Everett's recent demand forecasts (2000 Comprehensive Water Plan), a yield of 20 mgd is available in 2010. This amount would decline linearly to 0 mgd by 2030. In order to treat and deliver this amount of water by 2010, several improvements would be required:

- ☐ Expansion to the Everett Water Filtration Plant to handle the full 246 mgd.
- ☐ In order to convey this water from the plant to an intertie pipeline, an additional transmission line would be required. This line would run from the filtration plant down the existing transmission line corridor to a point connecting to the intertie pipeline. For cost estimating purposes this connection point was assumed to be where the existing transmission line corridor crosses State Route 9.
- ☐ An intertie pipeline would be necessary to convey water from this connection point to a point in North King County. The exact route of this line is not yet determined.

This project could supply more water on a long-term basis to south Snohomish County and north King County if completed in conjunction with the Sultan Basin Expansion Project, described below.

French Creek Aquifer Storage and Recovery Project

The French Creek Aquifer Storage and Recovery (ASR) Project would withdraw 25 mgd from the Snohomish River, just upstream of French Creek, and store it in an aquifer for later recovery and use. This project would be used in conjunction with the Weyerhaeuser Water Right Project on the Snohomish River (described below). It is envisioned to be part of a regional supply ASR project, or, alternately, a smaller Northshore Utility District project. A "Preliminary Evaluation of Aquifer Storage and Recovery in the Bear Creek Drainage Basin" has been conducted and shows that there is potential for such a project and that a valuable aquifer storage resource exists in the upper Bear Creek watershed, where this project would be located. The storage and recovery aquifer would be located in the higher elevations of the Bear Creek watershed, primarily west of Highway 9 near Clearview, which is within the Cross Valley Utility District area.

This project would withdraw 25 mgd from the Snohomish River during the wet winter months for storage in the aquifer. Withdrawals would be during the late summer and early fall when the Snohomish River often experiences extremely low flows or in the event of emergencies or shortages from other sources. The anticipated yield from the aquifer would be 8.4 mgd, equal to the average daily demand for Northshore Utility, or up to 10 mgd for a regional project. Peaking demand would be met by other sources. The transfer of water from the Snohomish River to an aquifer storage would require several new facilities. These include transmission mains, ASR and diversion wells, and pumping facilities. Preliminary cost estimates have been completed. However, since this project is still in its initial planning and permitting stages, a full project cost estimate has not been developed.

Lake Tapps Project

On June 20, 2000, Puget Sound Energy (PSE) submitted an application to the Washington State Department of Ecology (Ecology) for a 100 cfs (65 mgd) annual average and 150 cfs (97mgd) peak water right for public water supply and municipal water purposes (the Project). Ecology is scheduled to make a final decision on the water right in December 2002. This proposal was developed and is being perused in connection with the efforts of the Lake Tapps Task Force (the Task Force) to arrive at a collaborative settlement of issues surrounding the 1997 Federal Energy Regulatory Commission (FERC) operating license for PSE's White River Hydroelectric Project (the Power Project). In addition to providing water for municipal purposes, the Project would result in increased instream flows and allow the use of reservoir capacity to address low-flow periods on the White and Puyallup Rivers.

The terms and conditions of the FERC license render the Power Project

uneconomical. The license was appealed by PSE and State and Federal agencies. The Task Force was formed in 1998 and a two-year stay of the FERC proceeding was secured to allow the Task Force to develop a collaborative solution that addressed stakeholder interests. The Task Force assessed 34 options, identifying 13 as providing the best prospect for resolving all related issues. The highest priority of the Task Force is pursuing the use of the reservoir as a source for public water supply. If the Power Project were to be retired, the reservoir would no longer be maintained and Lake Tapps would recede to its “natural” state. This would result in loss of the recreational and other beneficial uses of the Lake.

In addition to the infrastructure in place and required for the continuation of the Power Project, the following additional infrastructure would be necessary to provide for municipal water use:

- ☐ Pipeline to connect the Project to the existing Power Project;
- ☐ Treatment Plant to treat Lake Tapps water to drinking water standards; and
- ☐ Regional Interconnection points (pipelines and pump stations). Options include connection to the Tacoma system at McMillin Reservoir, connection to the Tacoma and Seattle systems through the North Branch of the Second Supply Project, connection to the Seattle system at lake Youngs and connection to the Seattle system at the Eastside Reservoir.

In July 2001, PSE and the Cascade Water Alliance (Cascade) entered into a Memorandum of Understanding to cooperatively develop the water right and negotiate terms and conditions by which Cascade could acquire all or a portion of the water right. As an additional feature of the Project, Cascade has proposed to reserve a portion of the Lake Tapps water to be used in a “source exchange” program. Under such a program, local water sources which may be adversely impacting flows and therefore endangered fisheries would be able to receive regional water (seasonally or permanently) to minimize the impact of the local source.

Sultan Basin Expansion Project

This project would expand use of the existing Sultan River Basin source of supply. The Sultan River and Spada Reservoir impoundment are currently used to supply the majority of municipal water used in Snohomish County. Existing infrastructure, including treatment and transmission facilities, could be augmented to deliver more water from the Sultan River and Spada Reservoir to Snohomish County and north King County. Recent studies have shown that the safe yield from the Sultan River is 265 mgd, which is significantly higher than existing demands served from this source of supply

and the current water rights (246-mgd maximum instantaneous, 129-mgd average annual withdrawals allowed). The safe yield is the annual average demand that could be served 98 years out of 100 without water shortages. The City of Everett currently has a water right application pending at the Department of Ecology for an average annual withdrawal of 64 mgd and a maximum instantaneous withdrawal of 129 mgd. This project is based on implementation of that application. Thus, this project could provide up to an additional 64 mgd (average annual withdrawal) beyond Everett's current water rights on the Sultan River. Several improvements are required in order to treat and deliver this additional water to customers.

- ❑ A new transmission line from the existing diversion point on the Sultan River to the Chaplain Reservoir would need to be constructed.
- ❑ The expansion of the existing Everett Water Filtration Plant would occur in order to handle the additional 200 cfs. Improvements equivalent to building a parallel treatment facility would be required.
- ❑ Construction of a new transmission line would be needed from the water filtration plant to an intertie pipeline. This line would run from the filtration plant down the existing transmission line corridor to a point connecting the intertie pipeline.
- ❑ Construction of an intertie pipeline would also be necessary to convey water from the connection point along the existing transmission line corridor to a point in north King County. The exact route of this line is yet to be determined.

Weyerhaeuser Water Right

From the early 1950s until 1992, the Weyerhaeuser Company (Weyco) owned and operated a pulp mill in Everett, using a water right that allowed them to withdraw (at a maximum instantaneous rate) up to 36 mgd of water for industrial use from the adjacent Snohomish River. Weyco closed down the mill in 1992, but kept the water right. In 1996, three public water utilities, including the City of Everett, Northshore Utility District (NUD), and Woodinville Water District (WWD), formed the Snohomish River Regional Water Authority (SRRWA) and acquired the Weyerhaeuser water right. The SRRWA was established by interlocal agreement to address the need for regional cooperation and planning in the development, operation, and management of new municipal purpose water sources. The SRRWA water service area presently includes the water service areas of NUD, WWD, Bothell, and a portion of the Everett service area in southwest Snohomish County north of the King County line. The SRRWA developed and submitted to the Washington State Department of Ecology (Ecology) a draft plan for beneficial use of the water right. Ecology has approved the requested

changes in water right. However, this decision was appealed by the Tulalip Tribes to the Pollution Control Hearings Board in January 2002.

The quantities authorized under the SRRWA water right allow for a variety of system design options. These options include, but are not limited to, the following:

- ❑ Maintaining 15 mgd to serve the former Weyco industrial sites, and constructing new facilities to treat the remaining 21 mgd to serve potable demand within the SRRWA service area,
- ❑ Using all 36 mgd to meet existing and projected industrial demands,
- ❑ Distributing the 36 mgd in equal amounts among SRRWA members, or
- ❑ Constructing new transmission facilities capable of distributing 36 mgd or less to the Woodinville Water District and Northshore Utility District.